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## STUDENTS IDENTITIES AND TEACHER EXPECTATIONS: A FACTORIAL EXPERIMENT AT THE INTERSECTION OF RACE, GENDER, AND ABILITY

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STUDENTS IDENTITIES AND TEACHER EXPECTATIONS: A FACTORIAL  
EXPERIMENT AT THE INTERSECTION OF RACE, GENDER, AND ABILITY

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DISSERTATION

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A dissertation submitted in partial fulfillment of the  
requirements for the degree of Doctor of Philosophy in the  
College of Education  
at the University of Kentucky

By

Amy E. Fisher

Lexington, Kentucky

Co- Directors: Dr. Sycarah Fisher Professor of School Psychology

and Dr. Jonathan Campbell Professor of School Psychology

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## ABSTRACT OF DISSERTATION

### STUDENTS IDENTITIES AND TEACHER EXPECTATIONS: A FACTORIAL EXPERIMENT AT THE INTERSECTION OF RACE, GENDER, AND ABILITY

Behavioral and academic outcomes differ for students by race, ability, and gender within the K-12 public education system. Moreover, striking gaps exist at the intersection of race, ability, and gender, despite the similarity in severity and frequency of behavior between groups. Few studies, however, have examined the educational mechanisms that contribute to these gaps. Despite this, the scientific literature<sup>2</sup> shows that when educators have high expectations, students are more likely to be successful academically and behaviorally. Therefore, this study examines the inverse of this relationship by recognizing that biases likely influence behavior and academic student outcomes through expectancy bias for certain groups of students. The present study utilizes an intersectional framework of disability studies and critical race theory (DisCrit) to examine preservice educator expectations of behavior and academic outcomes of a hypothetical student at the intersection of student race, ability, and gender using a factorial vignette experimental design. Analyses consisted of factorial multivariate analyses of main and interaction effects including covariates for social desirability, tolerance, severity, and demographic characteristics. Results indicated significant and meaningful differences in expectations of behavior and academic experiences by race and ability. However, interaction effects were not detected. Implications and limitations of this study are discussed.

**KEYWORDS:** DisCrit, Intersectionality, Educator Perceptions, Expectancy Bias

Amy E. Fisher  
*(Name of Student)*

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06/06/2019  
Date

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STUDENTS IDENTITIES AND TEACHER EXPECTATIONS: A FACTORIAL  
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## **CHAPTER 1. Introduction**

Within the public educational system, disparate behavioral and academic outcomes are present for students by race, gender, and ability (United States Government Accountability Office, 2018; Welsh & Little, 2018). Even more striking gaps exist when examining school-based discipline practices for students with multiple marginalized identities. Specifically, at the intersection of race and gender, Black boys compared to White boys and Black girls compared to White girls are 3 to 5 times more likely to be referred to the office for discipline (Anyon et al., 2014; Bradshaw, Mitchell, O'Brennan, & Leaf, 2010; Gregory & Weinstein, 2008; Perry & Morris, 2014). Additionally, Black students with a disability are substantially more likely to receive exclusionary discipline compared to students of other ethnic backgrounds with a disability and students without a disability (Losen, 2018). Furthermore, the same gaps are evident by the aforementioned groups when examining academic outcomes given the correlation between appropriate behavior and academic success (Chavous, Rivas-Drake, Smalls, Griffin, & Cogburn, 2008; Gillborn, Rollock, Vincent, & Ball, 2016).

Despite the knowledge of these disparate outcomes, little has changed in the reduction of these rates despite national-level efforts (Losen, 2018). One underexamined mechanism of these disparate outcomes is educator expectancy bias (Good & Brophy, 1970; Dispenza, 2007; Staats, Capatosto, Wright, & Contractor, 2015). Educator expectancy bias is the differential anticipation of future action based on stereotypes (Good & Brophy, 1970). Expectancy bias in the classroom contributes to a lack of educational opportunity for marginalized students (Good & Brophy, 1970; Fisher et al., 1981).

Given that the data show poorer outcomes when multiple marginalized identities are present, there is a need to examine how educator bias uniquely and adversely affects students with intersecting marginalized identities. Therefore, this study draws directly from an intersectionality framework as well as acknowledging the interrelatedness of disability studies and critical race theories (DisCrit) to examine how educator perceptions of student behavior differ at the intersection of race, gender, and ability. The study aims to advance the current literature by employing an experimental design to examine preservice educator perceptions of student behavior and academic ability.

### **1.1 Intersectionality and DisCrit Theory**

Two theoretical frameworks are used to examine the complex nature of intersecting identities in the present study: Crenshaw's (1989) intersectionality theory and DisCrit. Intersectionality theory addresses the social complexities of discrimination, especially manifested when multiple marginalized identities intersect. The theory largely encapsulates the need to examine social inequalities by understanding the interconnectedness of race, class, gender, sexuality, ethnicity, ability that cannot be fully understood at the unidimensional level (Collins, 2015). Although intersectionality is a complex and complicated construct, the use as a theoretical framework serves as a landscape in understanding how social inequalities may function through different power dynamics that are often unseen by unidimensional understandings of identities. Therefore, intersectionality helps to unpack and understand the complexities of social inequalities within the historical and cultural contexts in which they occur. Further complicating the quantitative study of intersectionality is the use of categorization. Although the use of categorization and dichotomizing identity statuses does not provide

an accurate view of an individual, strategic categorization is often a necessary component in order to better study the complexities of inequalities for otherwise unseen populations (McCall, 2005). Application of this theory within education is represented by the discipline gaps between Black and White females. Black females experience discipline at a rate that is much higher than White females (Perry & Morris, 2014), in part due to stereotypes that Black females are perceived to be less ‘ladylike’ than White females (Morris, 2007; Morris, 2016).

While intersectionality theory research has focused on the intersections of race and gender broadly, DisCrit, introduced by Annamma, Connor, and Ferri (2013), complicates intersectionality theory by necessitating the acknowledgement of the role ability plays within the educational system. Annamma, Connor, and Ferri introduced a way to understand inequities for students of color with disabilities through three underlying assumptions about both students of color and students with a disability in that both race and ability are: (a) socially constructed; (b) interrelated; and (c) defined by White and able-bodied individuals in power as a deviation from normalcy.

DisCrit contends race, racism, disability, and ableism are built into the interactions, procedures, discourses, and institutions of education which qualitatively affects students with a disability differently by race (Annamma et al., 2013; Erevelles, 2000; Watts & Erevelles, 2004).

An application of DisCrit relevant to this study is evidenced by the fact that Black students are three times more likely to be identified with a disability associated with ‘deviant’ behavior (e.g., emotional behavioral disorder [EBD]) when compared to White students (Losen, Hodson, Ee, & Martinez, 2014). Moreover, Black students are

underrepresented in categories that are often treated with intervention or medication management (e.g., Autism; Moody, 2016; Ramey, 2018). Through special education policy and practice, Black students with disabilities are not only excluded from the opportunity to engage academically, but are frequently surveilled and thus, punished (Watts & Erevelles, 2004; Ferguson, 2001; Gilliam, Maupin, Reyes, Accavitti, & Shic, 2016).

## **1.2 Educator Expectancy Bias**

Although gaps in behavior and academic outcomes by student demographic characteristics has been widely studied, the scholarship regarding the mechanisms are lacking. Given that these gaps cannot be solely attributed to a quality within the student (Perry & Morris, 2014; Ritter & Anderson, 2018; Skiba, Arredondo, & Williams, 2014), other factors are likely at play. Educator expectancy bias is one of the ways in which educators may impact student outcomes (Welsh & Little, 2018). Expectancy bias refers to educators' expectancies regarding student behavior and/or academic ability based on the activation of implicit biases. Biases are the 'unconscious' associations one makes between two unrelated attributes prompted by individual and systemic histories, experiences, and beliefs (Dispenza, 2007). Typically, categorization of information is driven by associating two seemingly related things for ease of retrieval (Staats et al., 2015). However, bias occurs when individuals incorrectly categorize or associate two unrelated characteristics (Darley & Gross, 1983; Dasgupta, McGhee, Greenwald, & Banaji, 2000; Greenwald & Krieger, 2006). Biases begin as early as pre-school age and are prevalent regardless of an individual's age, political affiliation, and years of experience (Castro Atwater, 2008; Derman-Sparks & Ramsey, 2011; Freeman, 2016).

Educator expectancy bias is increasingly visible within today's school systems. This is likely in part due to the growing mismatch between educator and student demographics (Orfield, Frankenberg, Ee, & Kuscera, 2014). Educators in the K-12 public school system are a largely homogenous group in that they are 80% White (U.S. Department of Education, 2017); however, only 49.5% of students identify as White (National Center for Educational Statistics [NCES], 2014) a figure that is projected to continually decrease in the coming years. Unacknowledged educator biases lead to the differential treatment of students exhibiting the same behavior or academic skillset, which can have long-lasting effects on students (Banaji & Heiphetz, 2010). For example, students show educational improvement when educators set high expectations and exhibit a belief that their students can meet those expectations (Bamburg, 1994). However, when high expectations are set for some students and not others, those students begin to detect the differential treatment and start to perform to those expectations (Good & Brophy, 1970). When educators expect poor behavior or believe the student does not have appropriate academic skills, then the student may also start to also believe this, especially when confirmed through discipline or poor grades. Educators tend to give less positive attention, are more critical (Rubovits & Maehr, 1973; Scott, Gage, Hirn, & Han, 2018), and expect higher rates of inappropriate behavior from students of color compared to White students (Gilliam et al., 2016; Kunesh & Noltemeyer, 2015), even when holding grade level, intelligence, and socioeconomic status constant. Thus, students are differentially treated by race, ultimately leading to gaps in academic outcomes (Davis, Aronson, & Salinas, 2006; Mello, Mallett, Andretta, & Worrell, 2012).



In part, the behavioral manifestation of biases within the classroom is due to lack of appropriate training during teacher preparation programs (Losen et al., 2014; Skiba, Michael, Nardo, & Peterson, 2002). Educators often leave training programs with little knowledge regarding the impact that unexamined biases can have on students in the classroom. Additionally, given that most educators are White, understanding the impact of whiteness is often unexamined due to the homogeneity of peers and faculty during training. Frankenberg (1993) defines ‘whiteness’ as follows:

*Whiteness is a location of structural advantage of race privilege. Second, it is a ‘standpoint,’ a place from which White people look at ourselves, at others, and at society. Third, ‘whiteness’ refers to a set of cultural practices that are usually unmarked and unnamed. (p.1)*

Within the educational setting, whiteness is embedded within preservice training programs through the historically race-neutral or colorblind inherent in educational training program curriculum (Ladson-Billings, 2009). Whiteness allows those in power to justify and maintain the belief that everyone has equal opportunity and oppressions do not exist more or less for one race over another. This assumption maintains whiteness within education through attributing a lack of achievement by non-White individuals as a deviation from the ‘norm’ and thus, perpetuates the dislocation of students of color through removal from the classroom for ‘extra help.’ Without the acknowledgement of whiteness in educator training programs, preservice educators enter into the workforce with little awareness or understanding of the advantages they are afforded and how they only exist at the expense of marginalizing others (Avery & Walker, 1993; Sue, et al., 1992). Further distancing White educators from their responsibility of acknowledging

the influences of whiteness are the embedded stereotypes that are taught within multicultural education courses. For example, these courses are typically taught by white faculty teaching white preservice educators about racial groups using terms like *disadvantaged* or *at-risk*. Thereby, reinforcing negative racial stereotypes and biases that allow educators to continue to ignore whiteness as the definition of *normalcy* in order to view any racial diversity as a deviation from the norm (Annamma, Jackson, & Morrison, 2017; Ladson-Billings, 2009). The perpetuation of whiteness is problematic because discipline referrals begin at the classroom level by educators (Freeman, Simonsen, Briere, & MacSuga-Gage, 2014; Oliver & Reschly, 2010; Skiba, et al., 2014) and educators carry most of the weight in deciding on disciplinary actions (Artiles, Kozleski, Trent, Osher, & Ortiz, 2010).

### **1.3 Differential Behavior and Academic Expectations**

Two theoretical frameworks are used to examine the complex nature of intersecting identities in the present study: Crenshaw's (1989) intersectionality theory and DisCrit. Intersectionality theory addresses the social complexities of discrimination, especially manifested when multiple marginalized identities intersect. The theory largely encapsulates the need to examine social inequalities by understanding the interconnectedness of race, class, gender, sexuality, ethnicity, ability that cannot be fully understood at the unidimensional level (Collins, 2015). Although intersectionality is a complex and complicated construct, the use as a theoretical framework serves as a landscape in understanding how social inequalities may function through different power dynamics that are often unseen by unidimensional understandings of identities. Therefore, intersectionality helps to unpack and understand the complexities of social

inequalities within the historical and cultural contexts in which they occur. Further complicating the quantitative study of intersectionality is the use of categorization. Although the use of categorization and dichotomizing identity statuses does not provide an accurate view of an individual, strategic categorization is often a necessary component in order to better study the complexities of inequalities for otherwise unseen populations (McCall, 2005). Application of this theory within education is represented by the discipline gaps between Black and White females. Black females experience discipline at a rate that is much higher than White females (Perry & Morris, 2014), in part due to stereotypes that Black females are perceived to be less 'ladylike' than White females (Morris, 2007; Morris, 2016).

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#### **1.4 Differential Behavior and Academic Expectations**

Consequently, manifestations of expectancy bias likely take form in the classroom when educators are overwhelmed. Relatedly, educators report feeling like classrooms are difficult to manage when there is a lack of feeling of control. The less in control of the behavior that the educator feels, the more likely the teacher is to monitor the students resulting in catching more inappropriate behaviors that may have otherwise gone unnoticed (Chang & Sue, 2003). Additionally, the more frequent and severe the educator believes the behavior to be, the expectation for academic success diminishes (Good & Brophy, 1970; Fisher et al., 1981). Not only do perceptions of academic success decrease when inappropriate behavior is punished, but the student is more likely to be excluded from educational opportunities due to their behavior, thus leading to diminished academic outcomes (Bennett, Gottesman, Rock, & Cerullo, 1993; Foster, Ysseldyke, & Reese, 1975).

### **1.4.1 Race**

Educator perceptions of their own ability to control student behavior is largely influenced by racial stereotypes, which likely contribute to the more frequent surveillance and punishment of Black students (Ferguson, 2001; Gilliam et al., 2016; Morris, 2005). Not only do educators differentially surveil Black students more often than White students, but their perceptions of behavior differ in function by group; (a) boys are rated as more aggressive than girls (Archer, 2004; Bertrand & Pan, 2013; Pellegrini, 2011), (b) students with disabilities are perceived to display more severe behavior than students without disabilities (Allday, Duhon, Blackburn-Ellis, & Van Dycke, 2011; Algozzine, Mercer, & Counterline, 1977; Foster & Salvia, 1977; Foster et al., 1975), and (c) Black students' behavior is rated as more indicative of a pattern than White students. Prior studies in which perceptions of behavioral patterns were examined, utilized vignette methodology with educators to evaluate if differences in ratings of the same behaviors occurred by the identified race of the student (Kunesh & Noltemeyer, 2015; Okonofua & Eberhardt, 2015).

### **1.4.2 Gender**

Most of the literature regarding educator expectations of disruptive behavior is largely centered around comparisons between boys and girls (Bertrand & Pan, 2013). A meta-analysis of teacher ratings of aggression by gender revealed that educators consistently rated male behavior as more aggressive than female (Archer, 2004). Educators are inclined to assume that girls are better behaved than boys, and thus are less monitored. However, when girls display disruptive behavior, that behavior is seen as out of character and thus, judged more harshly, than behaviors of their male counterparts

(Sadker & Zittleman, 2009). Furthermore, this phenomenon persists even when educators are given explicit training in recognizing aggression and gender biases (Pellegrini, 2011).

### **1.4.3 Ability**

Educators perceive students with a disability label as exhibiting more severe behavior than students without a disability label. Findings from several experimental randomized vignette studies indicated that educators consistently rated the same behavior as more intense, disruptive, or severe when a disability label was present than when no label was identified (Allday et al., 2011; Algozzine et al., 1977; Foster & Salvia, 1977; Foster et al., 1975). However, comparisons within disability categories show even more severe ratings when the condition is specified as an emotional/behavioral disorder when compared to the label of Autism (Allday et al., 2011; Johnson & Blankenship, 1984). As further evidence of the power of labeling bias, Gillung and Rucker (1977) conducted a study in which educators reviewed profiles of students who were already receiving special education services. Results indicated that educators were significantly more likely to recommend restrictive services and settings when the profile included the students' label than when the profile did not include the students' exceptionality label. One of the limitations of the above literature is that in all of the studies, gender was either not specified or specified as male only, therefore limiting the ability to examine interactional effects by gender.

## **1.5 Current Study**

Given that educator expectancy bias manifestations are inconsistent between race, gender, and ability, at the *intersection* of race, gender, and ability, expectancy bias is

expected to function in a complex way. Utilizing an intersectional and DisCrit framework, it is further be expected that even more detrimental disparities in behavior perceptions would exist when multiple marginalized identities interact (Annamma, Connor, & Ferri, 2013; Crenshaw, 1989). However, there is a paucity of experimental literature examining how these biases are manifested for students with intersecting marginalized identities by race, gender and ability. In fact, the experimental literature has only examined this relationship at the unidimensional level, despite sufficient theory backing the need for further study at the intersection.

Within the current study, the marginalized intersecting identities of interest are Black females with EBD. Even though boys are overrepresented in special education, girls with a disability label have lower literacy rates, are less likely to go into higher education, and have poorer paying jobs than boys with disabilities (Rousso, 2015). However, rarely are girls with disabilities highlighted in education, and research examining this population is scarce (Rousso, 2015). As further evidence of intersectional complexity, Black girls are not only subject to more surveillance (Ferguson, 2001; Morris, 2005), but also to harsher interpretations of similar behavior to boys and White girls due to stereotypes at the intersection of race and gender. Specifically, Black female students are stereotyped to be less feminine, appear older, and are perceived to be more aggressive than White females (Morris, 2007). Yet, they are still held to the same standards as White females (Blake, Butler, Lewis, & Darenbourg, 2011; Crenshaw, Ocen, & Nanda, 2015; Morris, 2016).

The goal of this study was to examine preservice educator expectations of a hypothetical student's behavioral and academic-related experiences based on

ambiguously described disruptive behavior randomized by student race, ability, and gender. Drawing from an intersectional framework and DisCrit theory, this study examines the hypothesizes that biases from those in privileged positions manifest in often complicated and complex ways towards those with intersecting marginalized identities. This study uniquely contributes to the current literature by being the first to examine educator perceptions of student behavior at the intersection of race, gender, and ability. Intersectionality is becoming increasingly recognized as an important framework in uncovering social inequalities for otherwise unseen populations, it has not been a focus within the K-12 education field to date using quantitative methodology. The use of categorization of identities in this study is strategic in its use while also recognizing that an individual's identity is not static and cannot be defined by a few categorizations. However, the use in this study is to better understand mechanisms of social inequities for individuals by better understanding classroom level factors, specifically, educator expectations. This study employed an experimental randomized vignette methodology; this strategy is the recommended format to examine attitudes and beliefs while limiting social desirability and maximizing predictive validity compared to the often-used direct measures like questionnaires (Atzmüller, & Steiner, 2010; Mutz, 2011). For this study, preservice educators were asked to participate given that case studies typically used in educator preparation programs are similar in style to vignettes. This population was of particular interest given that unexamined biases are likely to be present prior to the start of education careers and training programs are ideal environments to address these considerations. Therefore, this study not only aims to explore biases that can be addressed in educator training programs, but also advances the literature by examining



potential biases at the intersection of multiple marginalized identities (Choo & Ferree, 2010; Annamma, Jackson, & Morrison, 2017). Therefore, this study seeks to answer the following research questions:

#### 1.5.1.1 Research Question 1.

Do educators' perceptions of behavior and academic success differ across racial, gender, and disability categories? It was hypothesized that mean ratings of educators' perceptions of behavior and academic success are likely poorer when presented with a student who is Black vs. White, female vs. male, or EBD/Autism vs. No label.

#### 1.5.1.2 Research Question 2.

Do racial, gender, and disability categories yield interactive effects on educators' perceptions of behavior and academic success? It was hypothesized that differences in mean ratings are likely even poorer when multiple marginalized identities are presented by race, gender, and ability.

## **CHAPTER 2. Method**

### **2.1 Design**

A 2x2x3 between-subjects experimental design was utilized in which the effects of a hypothetical student's race (White or Black), gender (Male or Female) and ability status (No Label, EBD, or Autism) were examined on preservice educators' expectations of the student's future behavior and academic related experiences. Furthermore, the interaction effect of race, gender, and ability on these perceptions were examined. Participants were randomly assigned to one of 12 possible vignette conditions in which

only race, gender and ability status were manipulated, thus increasing the potential for causal inferences using randomization.

### **2.1.1 Vignettes and survey construction.**

The construction of the vignette and survey were developed based of previous literature and vetted through cognitive interviews with current ( $n = 5$ ) and preservice ( $n = 8$ ) educators as well as by experts ( $n = 4$ ) in the field of education (Peterson, Peterson, & Powell, 2017). Based on reviewer feedback, only small adaptations were made for purposes of readability and clarity with no alterations to the constructs or content.

Most important, the purpose of the cognitive interview and panel review was to confirm that the behavior described was not only realistic but considered somewhat disruptive to the teacher and/or the classroom. It was important that the behavior was consistently viewed as not at all disruptive or extremely disruptive to allow for variability between respondents. Based on the feedback from the reviewers during the vignette construction, the behavior was most frequently described as somewhat disruptive across conditions. Moreover, all reviewers indicated that the hypothetical scenario presented was realistic scenario across all 12 conditions. Further confirmation was gathered from the final sample in this study through the addition of two items in which respondents were asked the extent to which the described scenario was realistic (see item descriptions in Appendix). Responses to the two items revealed a mean of 6.22 ( $SD = 1.06$ ) and 5.59 ( $SD = 1.28$ ), on a 7-point scale. These social validity checks indicate a strong agreement that the vignette description was indicative of a real-world scenario.

## 2.2 Vignette

The present study utilized an experimental, three-way factorial design using short, systematically manipulated vignettes followed by a survey. Vignettes are short descriptions of a person, object, or situation systematically manipulated to investigate respondents' beliefs, attitudes, or judgments (Atzmüller & Steiner, 2010). Vignette methodology is superior to both self-report measures and implicit bias measures when examining undesirable attitudes and behaviors (Cunningham, Preacher, & Banaji, 2001; Mutz, 2011). Not only does the use of vignettes limit socially desirable responses through indirect measurement, but they are also a better predictor of future behavior than other attitude methods (Evans et al., 2015; Finch, 1987; He, Buchholz, & Klieme, 2017; Mutz, 2011).

The core vignette in this study was adapted from a prior study conducted by Kunesh and Noltemeyer (2015). This vignette was chosen because the scenario was deemed realistic by the participants in the study and they classified the behavior as 'mildly disruptive' and 'insubordinate.' This type of classification is germane to the present study because the ambiguity of the extent of the disruption allows for variation between participants (Algozzine et al., 2012). Additionally, the intention of the behavior described in the vignette is reflective of behavior that would likely be more bothersome and unmanageable to the teacher than it would be disruptive to the entirety of the classroom.

In order to adapt the vignette for purposes of the current study, instructions were added and the original demographic language, time of day, and subject area were altered.

The final version of the vignette with underlined adaptations from the original is as follows:

*Imagine you are a practicing teacher within your content or specialization area in a general education classroom. It is the beginning of the school year and a race/gender/ability student is seated in your classroom. You have just concluded teaching a lesson and have asked all of your students to complete an independent activity at their desks. As you walk around the room checking each students' progress, you notice that the student mentioned above has (his/her) head on the desk. After allowing a few minutes to pass, you walk over and say, "Please start working." The student picks up (his/her) head, turns to you, and says, "Make me."*

For purposes of this study, the full factorial vignette combination included three factors; (a) race, (b) gender, and (c) ability (see Table 2.1). Each factor comprised two or three levels resulting in a vignette population of  $2 \times 2 \times 3 = 12$  different vignettes: (a) two levels (Black/White), (b) two levels (male/female), and (c) three levels (No label/EBD/Autism).

Table 2.1 Vignette Factorial Matrix and Text Descriptions

		<u>ABILITY</u>		
		NO LABEL	EBD	AUTISM
MALE	BLACK	Black male student	<i>Black male student receiving special education services under the category of EBD</i>	<i>Black male student receiving special education services under the category of Autism</i>
	WHITE	White male student ( <u>Reference Vignette</u> )	<i>White male student receiving special education services under the category of EBD</i>	<i>White male student receiving special education services under the category of Autism</i>
FEMALE	BLACK	Black female student	<i>Black female student receiving special education services under the category of EBD</i>	<i>Black female student receiving special education services under the category of Autism</i>
	WHITE	White female student	<i>White female student receiving special education</i>	<i>White female student receiving special education</i>

### **2.3 Sample and Data Collection**

The participants in this study came from a population of 1,139 undergraduate, education majors enrolled in two large public state universities recruited through convenience sampling. Data were collected over a span of 14 days during the final weeks of the Spring semester of 2019. Participants were sent an email from faculty or administrative staff through appropriate listservs that included all undergraduate education majors. The emails included a link to a consent form followed by the vignette and survey. Following best practices to increase online response rates by including reminder emails (Dillman, Smyth, & Christian, 2014), two email reminders were sent to the same population of students after three days and the again after 12 days. An incentive was included in which participants were given the option to enter a drawing for a \$50 gift card after completion of the survey.

After participants gave consent, they provided demographic information and were randomly assigned to one of 12 vignette conditions. After reading the assigned vignette, participants were instructed to answer a series of survey items related to their own perceptions of the student in the vignette as well as their own personal traits, beliefs, and behaviors. Additional items were included at the end for respondents who identified themselves as White. These participants were directed to answer items from a scale regarding their own racial identity development from the White Racial Identity Attitude Scale (WRIAS; Helms & Carter, 1990).

There was a total of 177 responses (15% response rate). However, only 138 responses were used in the final analysis because 39 responders discontinued after completing only the demographic portion of the survey. There were no consistent patterns found for the non-responders to the final sample in demographics and time in which the survey was taken: University,  $\chi^2 = -1.08, p = .314$ ; Gender,  $\chi^2 = 4.43, p = .376$ ; Major,  $\chi^2 = 1.49, p = .685$ ; Year in Program,  $\chi^2 = 2.846, p = .584$ ; Disability Course Completion,  $\chi^2 = 0.02, p = .877$ ; and Behavioral Management Course Completion;  $\chi^2 = 0.00, p = .988$ . Cohen's (1988) EasyPower software was utilized to conduct a power analysis for a 2x2x3 factorial vignette design including three-way interaction effects to determine appropriate sample sizes needed for detection of small, medium, and large effects with 80% confidence. At the .05 significance level, a total of 163 participants (14 per cell) would detect a medium Cohens f-squared effect ( $f = 0.06$ ) and a total of 72 participants (6 per cell) would detect a large effect ( $f = 0.14$ ). Given that experimental designs often result in smaller effect sizes than other types of designs (Cohen, 1988) and previous vignette studies examining participant attitudes regarding difficult subjects like race reported medium to large effect sizes (Zigerell, 2018), the sample size of the present study ( $N = 138$ ) was determined to be adequate for analysis.

## **2.4 Measures**

In this study, dependent variables were measured by survey items related to behavior and academic expectations of a hypothetical student described within a short vignette. The independent variables of interest were fixed by the race, gender, and ability status reflected on the vignette read by the participant. Although race, gender and ability are non-categorical social constructions, these variables were restricted to categorical

manipulations within the design of the study to elicit underlying biases that result from categorization (Helms, Jernigan, & Mascher, 2005). As a general approach, within multivariate analyses, scholars recommend combining similar outcome measures through reliability analysis to reduce measurement error, increase power, decrease the likelihood of Type II error, and increase sensitivity in difference detection (Stevens, 2009, p. 208; Garson, 2015). Therefore, after examining the correlation matrix (see Table 3), reliability analysis was conducted for items with high correlations and combined if reliability alpha results were  $>.60$  (George & Mallery, 2010). All item descriptions and reliability results can be found within Appendix. Unless otherwise specified, all item responses were on a 7-point Likert-style scale with 7 indicating poorer outcomes than 1. Given the results from a previous similar study, Nolteymeyr, Kunesh, Hostultler, Frato, and Sarr-Kerman (2012) suggested using a 7-point scale over a 5-point scale to increase sensitivity.

#### **2.4.1 Behavioral expectations.**

Five variables were used in the analysis related to the construct of behavioral expectations; (a) behavior reoccurrence, (b) behavioral pattern, (c) Office discipline referral (ODR) (d) one or more suspension(s), and (e) serious exclusionary punishment. Items measuring the construct of behavioral expectations were developed based on prior national level statistics regarding behavior and academic gaps by race, gender, and ability (Welsh & Little, 2018). Two single items measured the first two variables which were related to the (a) perceptions of behavior reoccurrence and (b) expectancy of a pattern and were adapted from two previous studies for this survey (see item wording in Appendix; Kunesh & Noltemeyer, 2015; Okonofua & Eberhardt, 2015).

The other three behavior expectation variables related to perceptions of behavioral outcomes and were included based on literature documenting differential outcomes from national educational data states that have remained consistent over the past 30 years (Skiba et al., 2014; Welsh & Little, 2018). These variables related to exclusionary discipline procedures. Participants were asked a series of items regarding the likelihood of office discipline referrals, suspensions, expulsion, and arrests. Office discipline referral (ODR) and suspension items were single item variables. The serious exclusionary punishment variable consisted of three related items; expulsion, in school arrest, and out of school arrest (see Appendix for item wording). Reliability analysis of these three items revealed an alpha of .88 and were combined and averaged into one variable.

#### **2.4.2 Academic expectations**

There were four variables used in this study measuring the construct of academic expectations: (a) low cognitive ability, (b) low academic ability, (c) High school (HS) drop-out, and (d) academic help. Single items made up the (a) low cognitive ability and (b) low academic ability variables (see Appendix for item wording). Both items were adapted from a study by Darley and Gross (1983) in which differential perceptions of cognitive ability were found by varying student characteristics. The (c) HS drop-out variable was a single item that was reverse coded for interpretation. The final academic variable, (d) academic help, was comprised of three items in which respondents indicated the extent to which the student was likely to experience academic help for math, reading, and writing (see item wording in Appendix). Reliability analysis of the three items, revealed an alpha of .97.



### 2.4.3 Covariates/Controls

Demographic, vignette interpretations, and personal trait items were included within the survey to account for possible confounding variables. Demographic items included university affiliation, gender, race, year in program, major, and program specific items (see all demographic item wording in Appendix). To account for potential differences in the interpretation of the behavior within the vignette, participants were asked to rate the inappropriateness and level of disturbance of the described behavior (Kunesh & Noltemeyer, 2015). Personal trait items included measures of social desirability, tolerance for disruptive behavior, and a racial identity scale for participants who identified as White.

Social desirability is often described as a limitation when measuring attitudes. Therefore, the Social Desirability Response-Five item scale (SDRS-5) was included. The SDRS-5 is a shortened version of the commonly utilized Marlowe-Crowne (MC) Social Desirability Scale (Crowne & Marlowe, 1960). The SDRS-5 measure has similar reliability and validity properties as the MC scale (Hays, Hayashi, & Stewart, 1989). The internal consistency was .66 and .68 in the cross-validation study, which was consistent with the long form (.74; Hays et al., 1989; Reynolds, 1982). However, somewhat lower reliability estimates were found in this study with an alpha of .56 for all five items, indicating a moderate level of reliability. Given the moderate reliability and prior validated use of the measure, all five items were combined into one SDRS variable.

As a direct (self-report) measure of participants' level of tolerance for different types of typical classroom behaviors, respondents rated the level of tolerance they believe they have for disruptive behaviors. Two descriptions of educator-identified disruptive

behaviors were used from the *Teacher Checklist of School Behavior* (Roberts, Hutton, & Plata, 1985) and respondents were asked to rate both on the level of appropriateness in the classroom (see item wording in Appendix). These two items were chosen because they were rated as mildly disruptive in a similar manner as the behavior described in the vignette.

Participants who identified as White ( $N = 109$ ) completed an additional scale, WRIAS (see item descriptions in Appendix; Helms & Carter, 1990), to better understand the respondent's self-reported racial profile. The WRIAS is a 36-item scale with 12 subscales. The subscales follow six White identity development stages; contact, disintegration, reintegration, pseudo-independence, immersion/emersion, and autonomy. There are three items per subscale and two subscales per identity stage. As prescribed by Helms and Carter, 1990, six subscales are related to identifying the stage in which a respondent is located and the other six subscales are related to actionable steps towards moving out of each stage and onto the next. For the purposes of this study, only the six subscales related to current developmental stage identification were used in this analysis (18-items, six subscales). A principal component factor analysis with varimax rotation was applied to these six subscales. This method was utilized because the WRIAS does not have consistent evidence of a valid five factor structure (Behrens, 1997). The rotated component matrix and scree plot yielded two factors that together, accounted for 57.43% of the total variance with loadings ranging from  $\lambda = 0.61$ - $0.70$  on the first factor and  $\lambda = 0.26$ - $0.81$  on the second. The Barlett's Test of Sphericity was significant, providing evidence that the items were in fact, related to the factors in which they loaded. Therefore, two WRIAS variables were created by averaging the total scores into low and

high WRIAS variables. These variables were significantly and negatively correlated ( $r = -.526, p < .001$ ). Further substantiating the use of two variables was supported by White racial identity theory, with the low WRIAS variable reflecting an understanding of racism as either nonexistent or existing, but only by ‘bad White’ people, the high WRIAS items reflect racism as an understanding that it exists and oppresses from a systemic level (Helms & Carter, 1990).

## **2.5 Method of Analysis**

Multivariate statistical techniques were employed for this study to estimate how the vignette dimensions influenced respondents’ expectations of behavior and academic experiences in conditions with multiple marginalized identities. Given that the questions of interest are related to examining mean differences with interaction effects and that theory suggests behavioral and academic outcomes are likely correlated, Model 1 utilized multivariate analysis of variance (MANOVA), which is a procedure for analyzing more than one outcome variable explained by one or more independent variables (Garson, 2015). However, before interpreting interaction effects, main effects were first examined. Post hoc analyses were conducted for significant between-subject values to determine which values of the independent variable contributed to the explanation of the dependent variables.

Previous research and theory suggest the need to account for participant interpretations of the behavior as well as personal characteristics (Johnson & Blankenship, 1984; Kunesh & Noltemeyer, 2015; Okonofua & Eberhardt, 2015). Therefore, a second model was employed using multivariate analysis of covariance (MANCOVA), which allows for the inclusion of covariates in the model. Pairwise

comparison of estimated marginal means were analyzed for significant between-subject effects to examine how different levels of the independent variables affected levels of the dependent variable.

Both models provide main and interaction effects of different levels of the independent variable on multiple dependent variables. The addition of covariates in the second model would be expected to reduce error and provide a better estimate of the true independent variable effects on the dependent variables. Both analyses were conducted with SPSS 25.0 (IBM, 2017) using the multivariate general linear model function.

Prior to running the models, the assumptions for multivariate analysis were tested by examining histograms, skewness and kurtosis, a correlation matrix, and using Box's *M* tests. Independence of observation was assumed through the experimental design in which random assignment was utilized. Assumptions of absence of multicollinearity and normality were deemed tenable. Moreover, similarity of cell sizes was confirmed with a ratio from smallest to largest of 1.8:1 which falls close to the recommended ratio of 1.5:1 (Garson, 2015). However, violations of the homogeneity of variance were indicated with Box's *M* tests ( $F_{MANOVA} = 1.37, p < .001$ ;  $F_{MANCOVA} = 1.35, p < .001$ ). Therefore, to account for this violation of homogeneity, Pillai's trace multivariate *F* tests were used as a more robust and conservative test statistic compared to the more commonly used Wilks' lambda (Garson, 2015). Whenever Levene's test for homogeneity of variance was significant at the  $p < .01$  level, nonparametric statistics (Kruskal-Wallis) were used to confirm the effects. In all cases with significant Levene values, the Kruskal-Wallis findings were similar and thus are not reported.

Aside from participant race and gender, the inclusion of demographic and control/covariate variables was contingent on a significant correlation with at least one of the dependent variables in order to meet the assumptions of MANOVA and MANCOVA (Garson, 2015). Additionally, given that the WRIAS measure was only completed by White participants, the sample size decreased from 138 to 109, this covariate was included in the model only if significant effects were found between the independent variable and a dependent variable in which the WRIAS was correlated.

## **CHAPTER 3. Results**

### **3.1 Descriptive Statistics**

The final sample consisted of 83.93% female and 86.93% White participants, which is consistent with the current in-service educator population (U.S. Department of Education, 2017). Year in program for the sample included 14.82% first years, 24.19% second, 29.63% third, 17.78% fourth, and 12.59% fifth or above with 95.56% of the sample attending on a full-time basis. Primary program concentrations were 52.59% Elementary/Early Childhood, 26.67% Secondary (including concentrations in mathematics, science, social studies, or English/Language arts), 13.24% special education, and 5.92% other (physical education, agricultural education, or art/music). The average classroom observation time with a range of 0 to 200 hours was 91.94. Over half of the participants had taken a course related to students with exceptionalities/disabilities (77.78%) and/or behavioral management (68.89%). Finally, there was a fairly even split between respondents enrolled in the two different universities with 68.89% of the participants from the larger university. The randomization methodology employed ensured that there were no systemic differences of demographic characteristics across the

12 conditions. Descriptive statistics for each condition, main effect and two-way interaction effects are found in Table 3.1. As shown, there was little variability across conditions and outcome measures in mean ratings.

Table 3.1 Sample Proportions, Means, and Standard Deviations by condition.

<i>Condition (n)</i>	Behavioral Expectations					Academic Expectations			
	Reoccur	Pattern	ODR	Suspension	Ser Punish	Low Acad	Low Cog	Drop-out	Acad Help
	<i>M(SE)</i>								
Race									
White (72)	5.50(1.13)	5.22(1.31)	5.42(1.25)	4.56(1.38)	3.22(1.36)	4.38(.88)	4.21(.84)	2.71(1.28)	5.11(1.09)
No Label (25)	5.48(1.23)	4.72(1.54)	5.32(1.25)	4.76(1.42)	3.48(1.49)	4.08(.86)	4.12(.93)	2.36(1.04)	4.96(1.05)
EBD (25)	5.52(1.05)	5.64(1.19)	5.68(.9)	4.76(.93)	3.56(1.19)	4.56(.92)	4.28(.89)	2.72(1.17)	5.09(1.24)
Autism (22)	5.50(1.14)	5.32(0.99)	5.23(1.57)	4.09(1.69)	2.53(1.18)	4.5(.8)	4.23(.69)	3.09(1.57)	5.3(.95)
Black (66)	5.67(1.16)	5.11(1.31)	5.53(1.19)	4.44(1.34)	3.4(1.34)	4.54(.89)	4.27(.8)	3.02(1.32)	4.67(1.1)
No Label (19)	5.42(1.22)	4.79(1.13)	4.95(1.35)	4.11(1.33)	3.21(1.35)	4.42(.9)	3.95(.62)	2.84(1.64)	4.05(.62)
EBD (23)	5.65(1.3)	5.22(1.48)	5.96(.93)	5.04(.88)	3.86(1.44)	4.65(.71)	4.52(.67)	3(1.28)	4.97(1.1)
Autism (24)	5.88(.95)	5.25(1.29)	5.58(1.32)	4.07(1.67)	3.11(1.17)	4.67(.76)	4.29(.96)	3.17(1.09)	4.88(1.22)
Gender									
Male (66)	5.71(1.3)	5.2(1.27)	5.44(1.31)	4.65(1.34)	3.35(1.27)	4.45(.73)	4.18(.7)	2.88(1.35)	4.79(1.17)
No Label (19)	5.74(.93)	4.95(1.35)	5.11(1.49)	4.63(1.42)	3.36(1.47)	4.16(.83)	3.95(.78)	2.53(1.26)	4.42(1.07)
EBD (27)	5.70(1.07)	5.48(1.12)	5.78(.97)	5(.88)	3.67(1.17)	4.23(.89)	4.26(.59)	3.04(1.32)	4.88(1.34)
Autism (20)	5.70(1.3)	5.05(1.36)	5.3(1.49)	4.2(1.67)	2.92(1.12)	4.6(.68)	4.3(.73)	3(1.49)	5.03(.95)
Female (72)	5.46(1.17)	5.14(1.36)	5.5(1.2)	4.36(1.37)	3.26(1.42)	4.5(.93)	4.29(.91)	2.83(1.27)	5(1.05)
No Label (25)	5.24(1.21)	4.6(1.38)	5.2(1.16)	4.36(1.41)	3.37(1.41)	4.28(.94)	4.12(.83)	2.6(1.41)	4.68(.94)
EBD (21)	5.43(1.29)	5.38(1.6)	5.86(.85)	4.76(.94)	3.75(1.49)	4.67(1.02)	4.57(.98)	2.62(1.07)	5.24(.88)
Autism (26)	5.69(.84)	5.46(.95)	5.5(1.42)	4.04(1.56)	2.77(1.27)	4.58(.86)	4.23(.91)	3.23(1.21)	5.12(1.24)
Ability									
No Label (44)	5.45(1.21)	4.75(1.37)	5.16(1.29)	4.48(1.41)	3.36(1.42)	4.23(.89)	4.05(.81)	2.57(1.34)	4.57(.99)
EBD (48)	5.58(1.16)	5.44(1.34)	5.81(.92)	4.9(.91)	3.7(1.31)	4.6(.82)	4.4(.79)	2.85(1.22)	5.04(1.16)
Autism (46)	5.70(1.3)	5.28(1.15)	5.41(1.44)	4.11(1.6)	2.83(1.2)	4.59(.78)	4.26(.83)	3.13(1.33)	5.08(1.11)
White Male (35)	5.54(1.2)	5.37(1.33)	5.46(1.31)	4.71(1.51)	3.18(1.34)	4.29(.75)	4.03(.75)	2.69(1.39)	5.04(1.24)
No Label (11)	5.64(1.03)	4.91(1.76)	5.36(1.29)	4.91(1.64)	3.58(1.59)	3.91(.94)	3.91(1.04)	2.36(1.12)	4.82(1.08)
EBD (13)	5.38(1.12)	5.69(1.11)	6.69(0.86)	5(.82)	3.33(1.19)	4.38(.51)	4(.41)	2.54(1.27)	5.03(1.57)
Autism (11)	5.64(1.50)	5.45(1.04)	5.27(1.79)	4.18(.93)	2.61(1.15)	4.55(.69)	4.18(.75)	3.18(1.72)	5.27(1.01)

Table 3.1 continued

White Female (37)	5.46(1.07)	5.08(1.3)	5.38(1.21)	4.41(1.26)	3.25(1.39)	4.46(.99)	4.38(.89)	2.73(1.19)	5.18(.93)
No Label (14)	5.36(1.39)	4.57(1.4)	5.29(1.27)	4.64(1.28)	3.41(1.45)	4.21(.8)	4.29(.83)	2.36(1.01)	5.07(1.06)
EBD (12)	5.67(.99)	5.58(1.31)	5.67(.99)	4.5(1)	3.81(1.19)	4.75(1.22)	4.58(1.17)	2.92(1.08)	5.17(.81)
Autism (11)	5.36(.67)	5.18(.98)	5.18(1.4)	4(1.48)	2.46(1.25)	4.45(.93)	4.27(.65)	3(1.48)	5.33(.94)
Black Male (31)	5.90(.94)	5(1.18)	5.42(1.34)	4.58(1.15)	3.11(1.17)	4.65(.66)	4.35(.61)	3.1(1.3)	4.52(1.02)
No Label (8)	5.88(.84)	5(.54)	4.75(1.75)	4.25(1.04)	3.04(1.33)	4.5(.54)	4(0)	2.75(1.49)	3.88(.84)
EBD (14)	6.00(.96)	5.29(1.14)	5.86(1.1)	5(.96)	4(1.11)	4.71(.73)	4.5(.65)	3.5(1.22)	4.74(1.13)
Autism (9)	5.78(1.09)	4.56(1.59)	5.33(1.12)	4.22(1.39)	3.3(1.02)	4.67(.71)	4.44(.73)	2.78(1.2)	4.74(.83)
Black Female (35)	5.46(1.29)	5.2(1.43)	5.63(1.19)	4.31(1.49)	3.28(1.48)	4.54(.89)	4.2(.93)	2.94(1.35)	4.81(1.15)
No Label (11)	5.09(1.38)	4.64(1.43)	5.09(1.04)	4(1.55)	3.33(1.41)	4.36(1.12)	3.91(.83)	2.91(1.81)	4.18(.4)
EBD (9)	5.11(1.62)	5.11(1.97)	6.11(.6)	5.11(.78)	3.67(1.9)	4.56(.73)	4.56(.67)	2.22(.97)	5.33(1)
Autism (15)	5.93(.88)	5.67(.9)	5.73(1.44)	4.07(1.67)	3(1.27)	4.67(.82)	4.2(1.08)	3.4(.99)	4.96(1.43)

Note. *n* = cell sample size.

EBD = emotional/behavioral disorder; ODR = office discipline referral; Ser Punish = serious exclusionary punishment; Low Acad = low academic ability; Low Cog = low cognitive ability. Acad Help = Academic Help.



Table 3.2 shows Pearson  $r$  and point-biserial correlations between dependent variables and between control/covariate variables and dependent variables. As previously stated, the inclusion of a dependent variable in the model was dependent on having one or more significant correlations with another dependent variable(s). Therefore, both models included all of the dependent measures: (a) behavior reoccurrence, (b) behavioral pattern, (c) ODR, (d) one or more suspension(s) (e) serious exclusionary punishment (f) low academic ability (g) low cognitive ability (h) HS drop-out and (i) academic help. Of note, although all of the dependent variables were correlated with at least one other dependent variable, the behavioral pattern and suspension variables were significantly correlated with three other dependent variables while the other variables were correlated with one or two others. Moreover, several behaviorally related variables were found to be correlated academically related variables (e.g., serious exclusionary punishment with low cognitive ability,  $r = .50$  and behavioral pattern with academic help,  $r = .22$ ). Therefore, all nine variables were included in the same model rather than separated by behavior and academic related variables.

Table 3.2 Intercorrelations (Pearson's  $r$ ) Between Variables

<i>Variable</i>	1.	2.	3.	4.	5.	6.	7.	8.	9.	M	SE
1.Reoccurrence	--									5.58	1.14
2.Pattern	.37**	--								5.17	1.31
3.ODR	.18*	.18*	--							5.47	1.25
4.Suspension	.00	.14	.54**	--						4.50	1.36
5.Ser Punishment	-.15	-.04	.18*	.56**	--					3.30	1.35
6.Low Acad	.07	.25**	.13	.12	.16	--				4.48	0.84
7.Low Cog	-.06	.13	.06	.06	.14	.50**	--			4.24	0.82
8.Drop-out	.15	.09	-.02	.12	.34**	.12	.15	--		2.86	1.3
9.Acad Help	.06	.30**	.22*	.08	-.03	.12	.32**	-.07	--	4.90	1.11
SDRS <sup>a</sup>	-.20*	.02	.09	.19*	.20*	.20*	.22**	0.08	.09	0.02	0.08

Table 3.2 continued

Tolerance <sup>a</sup>	.40**	.20*	.06	-.02	-.15	.20*	.01	.03	-.04	5.44	0.92
Severity	.17	.10	.01	.13	.19*	.21*	.15	.18*	-.11	3.44	1.04
Inappropriateness	.12	.26**	-.04	-.08	-.12	-.04	.13	-.05	0.05	5.12	1.53
Hours in the classroom <sup>a</sup>	-.04	.09	0.16	-.21*	-.15	.02	.03	-.08	-.07	93.51	71.21
Female = 1	.09	.04	-.08	-.08	-.10	-.02	-.04	-.16	-.02	.84	0.37
White = 1	.18*	.07	.09	-.02	-.13	.07	.07	.02	-.18*	.87	0.34
University	.04	.04	.07	-.03	.02	.00	.04	-.05	.14	.29	0.45
Major <sup>b</sup>											
Elementary	.09	-.07	-.14	-.14	-.04	-.02	.04	.05	-.10	.52	0.50
Secondary	-.04	.10	.28*	.20*	.01	.11	.00	-.06	.10	.29	0.46
Special Education	-.12	-.08	-.10	-.03	.06	-.04	-.06	.04	-.02	.13	0.34
Other	.07	.09	-.10	-.05	-.03	-.11	.00	-.07	.05	.05	.22
Completed Courses											
Bx Management	-.05	.08	-.04	-.08	-.05	-.02	.10	-.09	.08	.78	0.42
Disability	-.03	.04	-.12	-.05	.01	.02	.16	.01	-.06	.70	0.46
WRIAS Low ( <i>n</i> =110)	-.10	-.20*	.06	-.01	.09	.13	.20*	.11	.05	2.47	0.48
WRIAS High ( <i>n</i> =109)	.16	.08	.03	-.03	-.07	.02	-.08	-.06	.05	4.79	0.61

Note. *N* = 138. \* = *p* < .05; \*\* = *p* < .001.

<sup>a</sup>These items refer to direct self-report unrelated to the vignette description.

<sup>b</sup>Categorical variables, dummy-coded and point-biserial correlation estimates reported.

ODR = office discipline referral; Ser Punish = serious exclusionary punishment; Acad Help = Academic Help Low Acad = low academic ability; Low Cog = low cognitive ability; SDRS = social desirability scale.

In the MANCOVA model Participant gender, race, and major were included in the as control variables. Race was coded as ‘White’ = 1 and 0 = ‘Other’ given that most of the sample comprised White participants. Even though gender was not correlated with the dependent variables, the race variable showed a weak positive association for White respondents and behavioral reoccurrence ( $r = .18$ ) and a weak negative relationship with the academic help variable ( $r = -.18$ ). This indicates that on average White respondents, reported higher ratings of likelihood of behavior reoccurrence and lower ratings on the likelihood of experiencing academic help than participants of another race. As found in Table 3, personal traits (social desirability and disruptive behavioral tolerance), vignette behavioral interpretations (severity and inappropriateness) were found to be correlated with several of the dependent variables and thus, included in the MANCOVA model.

Additionally, major and hours in the classroom were included as demographic controls. Within the major variable, secondary majors were weakly and positively correlated with ODR and serious exclusionary punishment variables,  $r_{pb} = .28$  and  $.20$ , respectively. Therefore, a “major” variable (dummy-coded 1 = secondary major and 0 = other majors) was used in the final MANCOVA model. Additionally, intraclass correlations were calculated to address the nested data structure for university setting. Intraclass correlation coefficients were nonsignificant for all dependent variables by university affiliation, results ranged from  $ICC = -.102, p = .882$  to  $ICC = .030, p = .366$ . Therefore, differences in ratings of the outcome variables were not attributed solely to the university setting in which the participant was enrolled, thus confirming independence of the data. In summary, the controls/covariates included in the MANOVA model were: race, gender, social desirability, tolerance, severity, inappropriateness, hours in the classroom and major concentration area.

Descriptively, participant responses tended to show an overall stronger agreement on the high WRIAS items than the lower. The average agreement with WRIAS low variable was 2.47 and the high variable was 4.79. The WRIAS high variable was not included in the MANCOVA model due to a lack of evidence indicating an association with any of the dependent variables. However, the WRIAS low variable had a weak and negatively relationship with behavioral pattern ( $r = -.20$ ) and a weak positive relationship with low cognitive ability ( $r = .20$ ). Therefore, this variable was included in the analysis only if significant effects were found for either of these two dependent variables.

## 3.2 Behavior and Academic Expectation Main Effects

For both models, the multivariate and between-subjects results are reported. The full results for between-subjects can be found in Table 3.3. Significant MANOVA and MANCOVA results are reported below. Additionally, post hoc analyses are reported for Model 1 and estimated marginal means were reported for Model 2 below. The MANCOVA model included the following variables: social desirability, personal tolerance for disruptive behavior, severity and inappropriateness of the vignette behavior, classroom experience hours, major, and race due to significant correlations (reported in Table 3). Participant gender was also included in the model as a control variable.

### 3.2.1 MANOVA results

A MANOVA was initially conducted to compare participants' behavioral and academic expectations by race, gender, and ability status. The omnibus multivariate result was significant for the ability condition,  $F(18, 238) = 2.17, p = .005$ ; Pillai's Trace = .28,  $\eta_p^2 = .14$ , indicating differences in one or more of the dependent variables by the hypothetical student's ability status.

The test of between-subjects effects for ability showed significant differences between ability status and respondent perceptions of the likelihood of the following; ODR,  $F(2, 5.78) = 3.66, p = .028, \eta_p^2 = .06$ ; one or more suspension(s),  $F(2, 7.09) = 3.89, p = .023, \eta_p^2 = .06$ ; serious exclusionary punishment,  $F(2, 8.40) = 4.77, p = .010, \eta_p^2 = .07$ ; and academic help,  $F(2, 4.93) = 4.23, p = .017, \eta_p^2 = .13$ . See Figure 3.1 for a graphical representation of the means by ability.

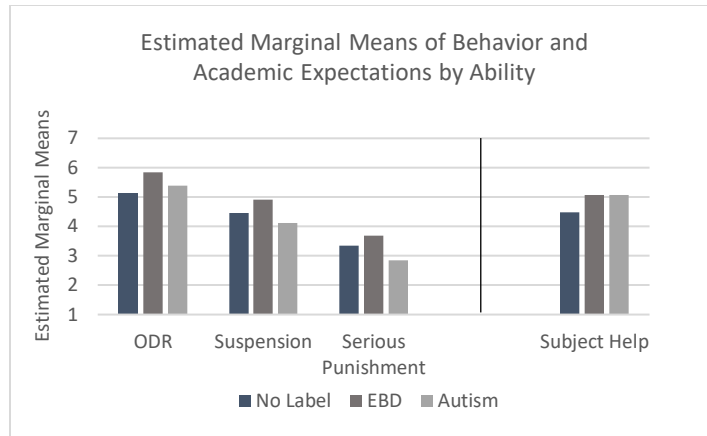


Figure 3.1 MANOVA results for significant main effects of ability

On average, participants rated the likelihood of the hypothetical student with EBD to receive a future ODR 0.65 ( $p = .037$ ) points more likely than the student with no label. Additionally, ratings regarding the likelihood of one or more suspensions and serious exclusionary punishment were an average of 0.79 ( $p = .013$ ) and 0.87 ( $p = .005$ ) points higher, respectively, when the EBD label was present compared to a label of Autism. Although not statistically significant in the post hoc comparison, the likelihood of experiencing academic help was 0.52 rating points higher when the Autism label compared to no label was present ( $p = .067$ ).

### 3.2.2 MANCOVA results

In Model 2, the covariates for social desirability, tolerance, severity, inappropriateness, participant major, disability course, and classroom hours were included in the previous model and a MANCOVA was conducted. Similar results to Model 1 were found in which the omnibus multivariate  $F$ -test revealed a significant effect for ability,  $F(18, 202) = 2.70, p < .001$ ; Pillai's Trace = .391,  $\eta_p^2 = .19$ . This result indicates that there was at least one significant mean difference between dependent

variables for the ability factor. Both models revealed similar results in the effect of race, gender, and ability on participants' behavioral and academic expectation ratings.

However, as reported in Table 3.3, Model 2 accounted for more of the overall variance when adding in the covariates. Several covariates were significant predictors of at least one of the dependent variables while controlling for all other variables in the model.

There was a significant relationship between participant self-report of behavioral tolerance with behavioral reoccurrence and low academic ability. Moreover, beliefs about the level of disruption of the hypothetical behavior was a significant predictor of serious exclusionary punishment, low academic and cognitive ability, and the likelihood of dropping out. The degree of behavioral inappropriateness from the vignette was a significant predictor of low cognitive ability.

The between-subjects tests for the main effect of ability status revealed significant results for five of the dependent variables. This indicates that a statistically significant difference in mean ratings was present between at least one of the three ability conditions. The between subject main effects were as follows: ODR,  $F(2, 6.65) = 4.20, p = .018, \eta_p^2 = .07$ ; one or more suspension(s),  $F(2, 6.34) = 3.91, p = .023, \eta_p^2 = .07$ ; serious exclusionary punishment  $F(2, 6.83) = 4.20, p = .018, \eta_p^2 = .07$ ; low academic ability  $F(2, 2.70) = 4.97, p = .009, \eta_p^2 = .08$ ; low cognitive ability  $F(2, 3.162) = 6.00, p = .003, \eta_p^2 = .10$ ; and academic help  $F(2, 6.77) = 5.92, p = .004, \eta_p^2 = .10$ . The effect sizes were all considered medium in size with typical medium effects falling around  $\eta_p^2 = .09$ . The partial eta-squared values ( $\eta_p^2$ ) indicate a good degree of practical significance for these results (Garson, 2015). As found in Model 1, only the main effect of ability was found significant in the overall multivariate tests.

Given the fact that post-hoc analyses do not account for model covariates (Garson, 2015; George & Mallery, 2010), instead estimated marginal mean (EMM) comparisons were analyzed in Model 2 to determine where the significant differences within ability levels. Estimated marginal means provide details regarding the magnitude of mean differences between independent variable groups while accounting for the covariates in the model (Garson, 2015). See Figure 3.2 for a graphical representation of the EMM results by ability. Results were reported based on the mean level of the covariates; social desirability = .014 (range = 0-5 with 5 indicating extreme responses on all items), tolerance = 5.84 (5-7 indicates low tolerance for disruptive behavior), inappropriateness of the behavior displayed in the vignette = 5.15 (5-7 moderately to extremely inappropriate), classroom experience hours = 91.94 (ranges from 0-200). The EMM reported indicate the magnitude of the mean difference between two conditions. At these covariate levels, the EBD condition, was rated significantly higher than the no label condition in the likelihood of ODR, 0.51 ( $p = .004$ ). This indicates that ratings were 0.51 points higher in the EBD condition than the no label condition. Although both EBD and no label ratings fell between 5 and 6, the difference moves from a slight likelihood to a moderate likelihood, which holds a good level of practical significance. For both the one or more suspensions and serious exclusionary punishment dependent variables, the EBD condition was rated 0.77 ( $p = .008$ ) and 0.80 ( $p = .005$ ) points higher than the Autism condition. Mean suspension ratings indicated a neutral response for both Autism and no label conditions (meaning not likely nor unlikely to receive a suspension); however, EBD mean ratings indicated a slight likelihood. Conversely, mean ratings for the likelihood of serious exclusionary punishment across all three conditions were rated

as unlikely, EBD ratings indicated a lower extent of unlikelihood and was closer to a neutral response option. Additionally, both disability conditions were rated significantly higher than in the no label condition for behavioral pattern ( $EMM_{EBD} = 0.80, p = .008$ ;  $EMM_{Autism} = 0.63, p = .041$ ); low academic ability ( $EMM_{EBD} = 0.83, p = .006$ ;  $EMM_{Autism} = 0.46, p = .010$ ), low cognitive ability ( $EMM_{EBD} = 0.55, p = .002$ ;  $EMM_{Autism} = 0.50, p = .005$ ) and for the likelihood to experience academic help ( $EMM_{EBD} = 0.79, p = .002$ ;  $EMM_{Autism} = 0.77, p = .004$ ). Although none of the mean ratings across conditions were rated higher than a slightly likely response option, the differences were meaningful in that the no label condition averages mostly fell within the natural category and the disability conditions falling in the slightly likely response categories.

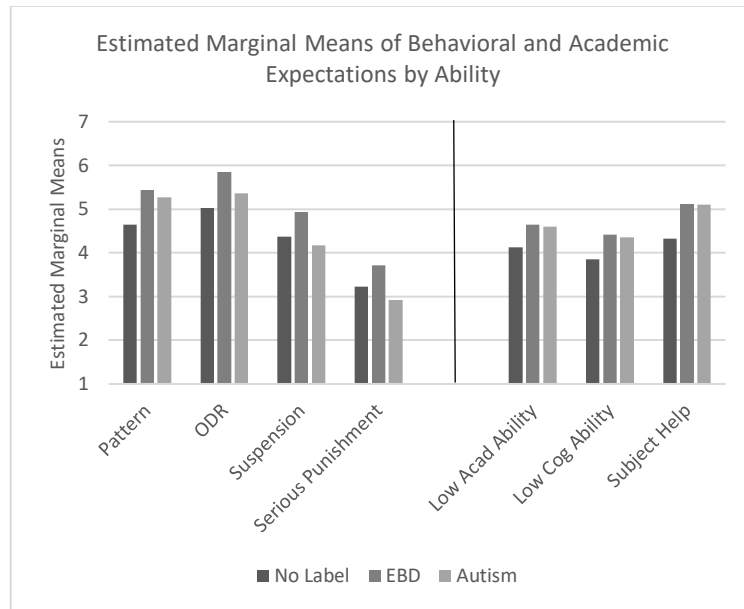


Figure 3.2 MANCOVA results by ability

### 3.3 Behavior and Academic Expectation Interaction Effects

Although there were no statistically significant two- or three-way interaction effects present in any models, there was an interesting pattern that emerged through



examining the estimated marginal means. Specifically, as shown in Figure 3, mean ratings for the likelihood of low academic ability were higher for Black students with no disability label (compared to White students with no disability label) in both gender conditions. Conversely, mean ratings of the likelihood of experiencing academic help were lower for Black students with no label compared to White students with no label in both gender conditions. These patterns were not apparent across the other two ability conditions. Again, however, this was not a statistically significant effect.

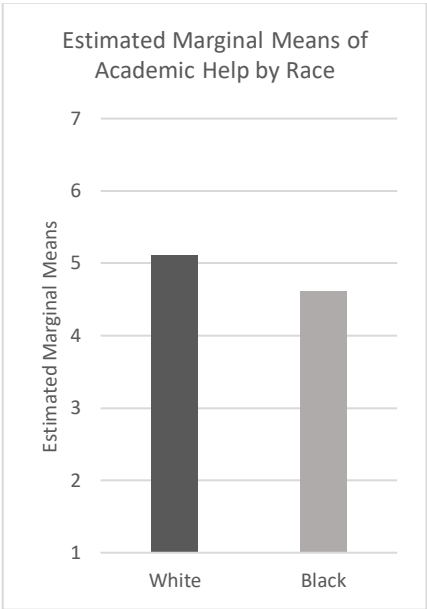
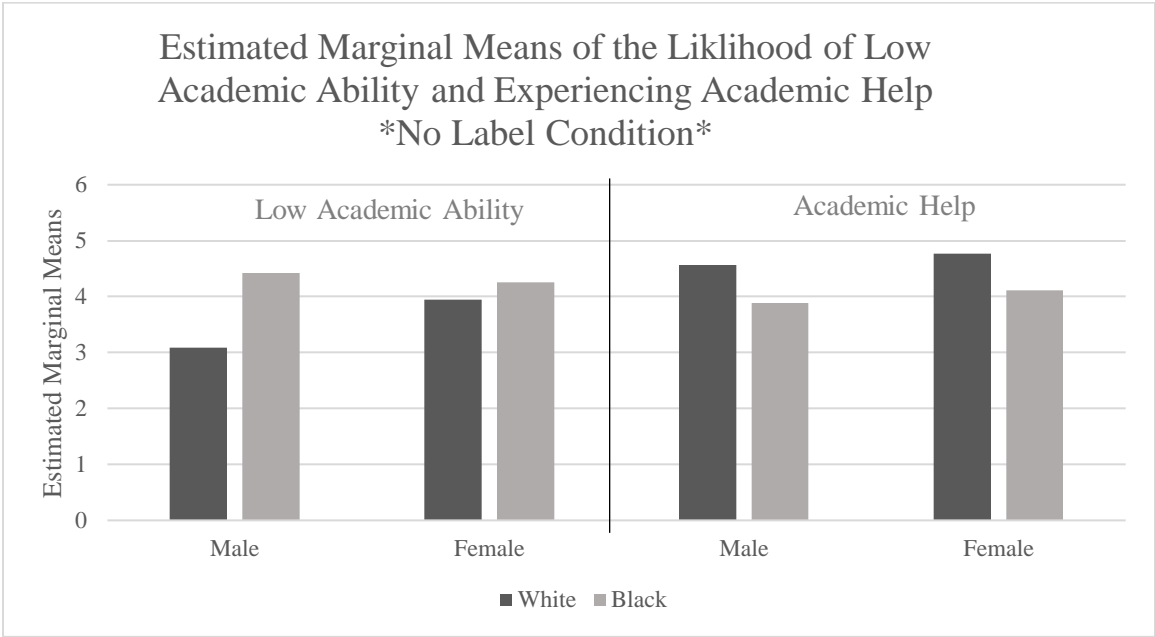


Figure 3.3 Mean results for Low Academic Ability and Academic Help

Given the emerging but nonsignificant pattern above and the low correlations with other dependent variables in the MANCOVA model, a univariate test for the academic help variable was run. Interestingly, the likelihood of experiencing academic help was rated an average of 0.43 ( $p = .042$ ) rating points higher in the White student condition compared to the Black student condition when accounting for the covariates in the prior MANCOVA model (see Figure 3.2). The effect of race was likely found nonsignificant in the MANCOVA multivariate omnibus tests because the set of dependent variables is based on the centroid mean of all of the dependent variables which can skew the results to the more highly correlated variables present in the set. However, there is a higher likelihood of committing Type 1 error by running the univariate test. Therefore, the main effect of race in the univariate test should be interpreted with caution.

Although there were no statistically significant results for gender, the likelihood of suspension rating differences was approaching significance  $F(1, 5.44) = 3.21, p = .076, \eta_p^2 = .04$ . Ratings for the male condition were on average 0.45 points higher than for the female condition.

### **3.3.1 WRIAS**

The prior MANCOVA model was run with only White subjects selected ( $N = 109$ ), and then was compared to the same model with the inclusion of WRIAS low as a covariate, specifically looking for differences in these models based on the significant findings from the results of the full MANCOVA model. The results of the model with only White subjects revealed similar results to the full model. However, within the behavioral pattern dependent variable, the difference in ratings between Autism and the

no label condition was no longer significant ( $p = .073$ ;  $\eta_p^2 = .05$ ). Conversely, when including WRIAS low as a covariate into the model, the same difference became significant again ( $p = .043$ ;  $\eta_p^2 = .06$ ) as found in the full model. Interestingly, however, the main effect for race on the academic help variable was no longer significant ( $p = .093$ ;  $\eta_p^2 = .03$ ) at the univariate level with the inclusion of WRIAS low. All other results found significant in the full model remained significant. Therefore, the self-report measures of lower identity level constructs on a White racial identity scale explained some of the difference found between ratings of academic help between White and Black students.

Table 3.3 MANOVA and MANCOVA *F*-test Results

*MANOVA and MANCOVA Between-groups F-test and significance at the < .05 level results with main and interaction effects reported examining race, gender, and ability on perceptions of behavioral and academic outcomes.*

Variables	Reoccur		Pattern		ODR		Suspension		Ser Punishment		Low Acad		Low Cog		Drop-out		Academic Help	
	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
<i>Main Effects</i>																		
Race	0.39	0.06	0.71	1.23	0.10	0.31	0.17	0.18	0.68	1.23	1.91	1.82	0.20	0.31	0.80	0.25	6.51*	4.26*
Gender	2.25	2.15	0.01	0.05	0.38	0.17	0.78	3.21	0.01	0.61	0.11	0.00	0.83	1.56	0.05	0.02	1.96	0.79
Ability	0.03	0.10	2.78	3.86*	3.66*	4.20*	3.89*	3.91*	4.77*	4.20*	2.45	4.97*	2.51	6.00*	1.62	1.91	4.23*	5.92*
<i>2-way Effects</i>																		
Race*Gender	1.10	0.93	0.92	0.78	0.83	0.63	0.22	0.72	0.11	0.02	1.00	0.69	2.47	1.77	0.26	0.16	0.35	0.41
Race*Ability	0.34	1.03	0.44	1.00	1.15	0.98	1.48	0.92	1.32	0.82	.37	0.62	0.61	0.33	0.38	0.40	1.75	0.33
Gender*Ability	0.46	0.36	1.03	0.71	0.00	0.06	0.01	0.12	0.18	0.21	0.10	0.31	0.67	0.90	0.85	0.63	0.13	0.01
<i>3-way Effect</i>	1.39	0.79	1.13	1.67	0.02	0.07	0.18	0.02	0.61	0.69	0.44	0.01	0.04	0.00	2.79	2.57	0.11	0.13
<i>Covariates</i>																		
SDRS		0.01		0.34		0.57		0.54		0.86		0.11		0.29		0.18		0.90
Tolerance		7.07**		2.93		1.00		0.96		0.60		13.56**		0.52		1.00		1.15
Severity		0.02		0.28		0.30		0.10		4.59*		5.74*		5.70*		3.85		0.60
Inappropriateness		0.24		5.82*		0.75		2.94		2.51		0.62		3.94*		0.13		0.09
CR Hours		0.13		0.98		2.81		3.90		1.71		2.00		1.36		1.27		0.94
<i>Controls</i>																		
Secondary Major		0.05		0.61		0.05		0.26		0.87		0.00		0.29		0.08		0.40
White		0.23		1.00		1.28		0.12		0.60		0.06		1.21		0.26		2.91
Female		0.00		0.89		0.60		0.05		0.03		0.36		1.02		3.36		1.24
<i>R<sup>2</sup></i>	.07	.14	.10	.22	.74	.15	.09	.17	.11	.20	.08	.29	.08	.22	.10	.17	.13	.19
<i>Adjusted R<sup>2</sup></i>	-.02	.01	.02	.09	-.01	.00	.01	.02	.03	.06	.00	.17	.00	.08	.02	.03	.05	.05

Note. 1 = MANOVA results; 2 = MANCOVA results.

MANCOVA results are the estimated marginal means at the following covariate values. SDRS = .015; Tolerance = 5.84; Severity = 3.41; Inappropriateness = 5.15; Classroom Hours = 91.94.

\* =  $p < .05$ ; \*\* =  $p < .001$ . ODR = office discipline referral; Ser Punish = serious exclusionary punishment; Low Acad = low academic ability; Low Cog = low cognitive ability. SDRS = social desirability scale; CR Hours = Classroom experience hours

## **CHAPTER 4. Discussion**

The present study utilized a between-subjects 2x2x3 factorial experimental vignette design to examine preservice educators' expectations of hypothetical students' behavioral and academic experiences at the intersection of race, gender, and ability status. Results of the MANOVA analysis revealed main effects for the ability condition in the likelihood of ODR, one or more suspension(s), serious exclusionary punishment, and academic help. Moreover, the main effect of race was significant for academic help at the univariate level. In addition to the above main effects remaining significant when accounting for low social desirability, low tolerance for disruptive behavior and a belief that the described behavior was disruptive, the following were also found significant for ability; beliefs that the behavior was part of a broad pattern, and beliefs that the student had low academic and cognitive ability. Between ability conditions, both disability conditions (EBD and Autism) were rated higher than the no label condition for behavioral pattern, low academic and cognitive ability, and in the likelihood of experiencing academic help. Within the ability condition, EBD was rated as more likely to experience an ODR than the no label condition and more likely to experience one or more suspensions and serious exclusionary punishment than the Autism condition. These results are fairly consistent with prior educational statistics showing more behavioral punishments for students with EBD than any other label or no label condition (Allday et al., 2011; Algozzine et al., 1977; Foster & Salvia, 1977; Johnson & Blankenship, 1984).

#### **4.1 Disability and Expectancy Bias**

The results showed differences in expectancies of behavioral and academic experiences by ability label for this sample. Interestingly, both the EBD and Autism conditions were rated higher in the likelihood that the student had low cognitive ability than the no label condition, despite the fact that low cognitive ability is not part of either eligibility requirement (Individual with Disabilities Education Act [IDEA] Part B; Sec. 300.8). One possible explanation for this difference is that disability stigma is at play (Storey, 2007). Moreover, in the model without covariates, the Autism condition revealed higher ratings than the no label condition for academic help. However, when including covariates for social desirability, tolerance, and severity interpretations, the model became significant for both Autism and EBD conditions with higher ratings in pattern, low academic and cognitive ability, and academic help. Thereby indicating that the newly found significant outcomes were influenced by the added factors.

Although the main effects for ability were not altogether surprising, the way in which differences between conditions manifested given the same behavioral description were compelling. Not only does the simple presence of a disability label elicit differences in academic and behavioral expectations between disability conditions, but these expectations are likely to lead to differential treatment if gone unaddressed (Bennett et al., 1993; Foster, Algozzine, & Ysseldyke, 1980; Good & Brophy, 1970).

#### **4.2 Race and Academic Resources**

In addition to the findings regarding the presence of expectancy bias by ability status, there was a significant main effect for race in the likelihood that the student would experience academic help. Specifically, ratings were significantly higher when the

student was described as White compared to Black at the univariate level. Drawing from the core tenets of DisCrit, this finding supports the claim that White students have access to more resources than Black students (Annamma et al., 2013). One possible reason for this finding is that educators may be biased to expect that White students will respond better to resources and thus, are given those resources. In line with the current literature, racial bias may be at play through stereotyping Black students' locus of behavioral control as internal compared to White students (Bridges, George, & Steen, 1998). In light of the current results and prior literature, it is likely a reflection of participant beliefs that Black students are more responsible for their behavior and academic achievement, thus, they are less likely to experience academic help than White students. This phenomenon is also found in social control theories in which Black students are more likely to receive punishment for their inappropriate behavior and White students are more likely to receive intervention and help (Moody, 2016; Ramey, 2018). Another possible reason is that preservice educators know that schools are commonly segregated by race with White students making up the majority of the population in mid- to high SES areas than when the school population is made of majority Black students (Orfield et al., 2014). Therefore, responses may simply be an acknowledgment of this fact. No matter the true cause, the results suggest that differences in expectancies for academic help exist by race for this specific sample prior to educators' entrance into the field and if unaddressed, could result in differential treatment.

### **4.3 Implications**

Surprisingly, this study did not find any interaction effects and therefore, did not confirm the presented hypothesis. In this sample of 135 preservice educators, only



meaningful differences were found by ability on a majority of the outcome measures and race for academic help. Although no differences were detected at the intersection of identities, there are still multiple interpretations of these findings that can be made. One conclusion is that there truly are no differences in expectations of behavior and academic experiences by race and gender or intersectional identities from the current sample of preservice educators. However, prior evidence suggests that this is likely not the case (Fisher et al., 1981; Good & Brophy, 1970; Kunesh & Noltemeyer, 2015; Okofonua & Eberhardt, 2015; Welsh & Little, 2018). Additionally, it would be expected that a difference by race and gender would be present in this study for advanced students with knowledge of educational outcomes by student groups. Therefore, theory suggests that there may be other plausible explanations to the lack of interaction effects present. One such explanation is that participants were aware of the hypothetical students race and gender identity and thus, tempered their responses for students with a marginalized identity. Substantiating this claim is the polarization of racism in the media since the Trump era began in which young and educated White individuals are more likely to describe themselves as antiracist in order to create distance from being associated with White supremacists (Taylor, 2018). However, identifying as antiracist does not correlate with underlying racist attitudes (Trepagnier, 2016), but does signal a way in which racism might be adapting within society. Robin Diangelo mentions the term *New Racism*, coined by film producer Martin Barker, in her book *White Fragility* as a way to describe the way in which racism adapts throughout time. She suggests that today, people want more than ever to appear non-racist; however, despite the appearance that racism might not exist in young educated people, the same disparities persist and are perpetuated by those not

wanting to appear as racist, which is a form of maintaining whiteness within education (p. 39 – 41). Furthermore, within the same vein, gender discrimination has become more prevalent with the rise the #MeToo Movement (Williams & Lebsack, 2018), which likely impacts the way in which individuals present themselves to distance from sexism. For example, since the movement, 87% of Americans report the need for zero tolerance policies for sexual harassment; however, only 49% of men report having thought twice about their own behavior (William & Lebsack, 2018). Therefore, even though it appears that society as made strides towards less gender-based bias, it may be that sexism is adapting in a different way than in the past.

Substantiating these hypotheses regarding social acceptability in today's culture, is a recent study conducted by Marcucci (2019) in which teachers rated the same behavior as more severe in nature for White students compared to Black students. However, when asked to rate the necessity of rehabilitation services when the behavior was rated similar between conditions, White students were rated as more likely to benefit than Black students. Given that differences by race and gender were detected within similar prior studies (Kunesh & Noltemeyer, 2015; Okofonua & Eberhardt, 2015; Pellegrini, 2011; Sadker & Zittleman, 2009), there may be a need to examine new ways in which racial and gender biases have adapted to the current culture.

A third compelling explanation for the lack of interaction effects, is the way in which race and gender function within ability status. Despite the findings from this study differing from theory and national level statistics by race and gender, the findings were consistent by ability status. Poorer expectations for behavioral and academic outcomes were present when a disability label was indicated compared to no label, thereby

suggesting these expectational differences are the same, no matter the students race or gender of the student. On the surface the results indicate that all things equal, any student within special education would likely experience the same expectational differences. However, special education statistics historically and consistently show populations with an overrepresentation of Black students (Losen, 2018) and poorer academic outcomes for girls in special education even, though they are an underrepresented population (Ruosso, 2015). One explanation for these outcomes is that special education serves as a form of othering (Adams & Erevelles, 2016) by dislocating students through disability status. Therefore, there is a need to better understand the selection process into special education in the first place. Theoretically, certain students may be more likely to be selected into special education than others. For example, given that Black students hyper-surveilled (Watts & Erevelles, 2004; Ferguson, 2001; Gilliam, Maupin, Reyes, Accavitti, & Shic, 2016) and Black girls additionally face behavior expectations beyond those for White girls (Pellegrini, 2011; Sadker & Zittleman, 2009), these students may be primed for referral to special education compared to those less surveilled. Therefore, these students may be more likely to be selected into special education over their counterparts and thus more likely to experience poorer behavioral and academic outcomes. Given the results of this study, it may be that expectancy bias does not in and of itself does not predict poorer educational outcomes than others, but the combination of systemic special education policies that trickle down to the classroom level may be a better predictor. In drawing on DisCrit and intersectionality theories, this hypothesis is a way in which systemic policies support hidden discrimination that trickles down to the classroom level. DisCrit exposes the subtle ways in which whiteness and ableism serve as mechanisms to

maintain privilege (Harry & Klingner, 2014). Moreover, DisCrit contends race, racism, disability, and ableism are built into the interactions, procedures, discourses, and institutions of education which qualitatively affect students with a disability differently by race (Annamma et al., 2013; Erevelles, 2000; Watts & Erevelles, 2004).

Historically, Black bodies have been dislocated through White politics. For example, redlining is an example of how Black bodies were dislocated to certain neighborhoods and validated through economic policies that remove White individuals from acknowledging segregation. Similarly, special education serves a similar purpose in dislocating Black bodies from full educational inclusion (Watts & Erevelles, 2004). Not only are Black students more likely to have a special education label, but within special education, Black students are overrepresented in categories viewed as ‘deviant.’ Specifically, Black students are twice as likely to be diagnosed with an emotional/behavioral disturbance than their White peers. Moreover, Black students are underrepresented in categories that are often treated with intervention or medication management like Autism. Conversely ‘deviant’ behaviors are often treated with punishment.

Through history, whiteness has served to maintain whiteness through the control of Black bodies (Annamma, Connor, & Ferri, 2013; Erevelles & Watts, 2004). This is parallel within the classroom and when a lack of control is perceived, Black students are dislocated through mechanisms like punishment and special education. Both distance the student from resources and opportunities for academic engagement.

Preservice educator program faculty may benefit from the findings of this study by examining the ways in which they address biases and whiteness within the classroom

setting. These findings suggest that training programs should include critical discourse regarding how educational systemic policies and procedures contribute to classroom level decisions and consequently, contribute to disparate outcomes. Firstly, however, training program preparation procedures might include an examination of the theoretical orientation of the presented curriculum in relation to race, gender, and ability. Without the understanding of these identities as social constructs, and this being taught to preservice educators, critical discourse becomes limited. One way to provide this structure is to introduce and incorporate theories like DisCrit and intersectionality into the curriculum. Moreover, education programs may want to consider incorporating strategies to encourage students to have this discourse by examining their own intersectional identities. Given that educators are mostly White (U.S. Department of Education, 2017) incorporating ways to talk about racial identity is an important step to building on the necessary discourses prior to entering into the educational system. Program facilitators may want to consider incorporating Helms (1990) White Racial Identity Development in addition to facilitating discussion around race and processing the difficulty with facing their own biases (Diangelo, 2018; Flynn, 2018). Preservice education training programs are prime settings to address the complexities of biases and how systemic policies contribute to detrimental outcomes prior to entering into the workforce. Increasing awareness of these issues and developing the appropriate skills to address systemic oppression is a necessary component to improving opportunities and outcomes for students with one or more marginalized identities.

Not only does this study contribute to the current literature by uniquely examining educator expectations by three identities (race, gender, and ability), but the findings

suggest the need to further examine the complex ways in which discrimination in public educational settings are manifested. In following DisCrit and intersectionality theories, future research should take into account not only the individual level, but also the systemic contributions to these outcomes. Furthermore, future study should consider the current culture and climate and how it may impact results differently than has been found in the past. Moreover, given the substantial evidence suggesting differential expectations by ability, examining preservice educator training programs and the way in which they approach understanding disabilities and biases would likely provide valuable information on this topic (Cunningham, Preacher, & Banaji, 2001; Good & Brophy, 1970; Greenwald & Krieger, 2008).

#### **4.4 Limitations and Future Directions**

Evaluating attitudes about less socially desirable constructs is difficult (Mutz, 2011). Although this study utilized vignettes as an indirect approach in measuring the construct of expectancy bias within preservice educators, it is possible that the explicit statement of the students' race, gender, and ability status were more direct than intended. Vignette methodology scholars disagree to the extent that this explicit statement is too direct. Some suggest using video clips or photographs that imply these characteristics rather than the explicit statement (Mutz, 2011). As further evidence that race and gender may have been more explicit than intended in this study is that the current racial and gender climate has become more politicized and, in the media, more than in the past which may influence the degree to which participants are attune to the race in the vignette (Auspurg & Hinz, 2015; Kline, 2016; Mutz, 2011). This may result in socially desirability bias playing a particularly large role in issues of identity such as

race and gender. However, this is a new area of study that requires further empirical evidence for support prior to making any broad claims.

Although significant main effects for ability and race were found in this study, the predictive validity of the results is limited. Despite this being a common limitation to measurement of attitudes, biases predicting behavior are even more challenging to measure (Atzmüller & Steiner, 2010; Finch, 1987; Mutz, 2011). Especially given the fact that everyone is prone to biases, without longitudinal evidence of student-teacher interaction, no future behavioral claims can be made. Moreover, the way to combat biases is to become aware of them so they move from the unconscious to the conscious (Blair, Ma, & Lenton, 2001). Therefore, a logical next step would be to gather evidence regarding participants awareness of their own biases regarding race, gender, and ability in a way that limits socially desirable responding. This would include validating the WRIAS measure as well as developing and validating measure by gender and ability. Additionally, a follow-up study with actual classroom interactions and outcomes would help to improve the predictability of biases.

The small sample size limited the statistical detection of small effects, particularly in the two- and three-way interactions. Even though the sample size was deemed large enough to move forward with the analysis with the expectation of medium and large effect sizes as found in prior research (Zigerell, 2018), it was not large enough to detect small effect sizes. Moreover, the interpretability of the two and three-way interactions in this analysis were limited due to the sample size limiting the amount of power that was attained. The reported power for the interaction term was low, thus decreasing the chance that the same lack of difference would be found if resampled (Garson, 2015).

Therefore, replication with a larger sample size in the future would be warranted before making any causal claims regarding whether any true interaction effects are present.

Additionally, a large number of participants did not complete enough of the survey to be able to use their data in this analysis, potentially due to the timing of the survey distribution, which was sent to preservice teachers during the end of the spring semester in which students are not only working on final papers and projects but are also inundated with multiple end-of-year surveys distributed throughout the university setting. Therefore, this likely negatively affected the response rate.

Another limitation of this study is that the construct of expectancy bias is difficult to disentangle from respondent's prior knowledge of outcomes by identity status.

Although significant and meaningful differences were detected by ability, the nature of the vignette design makes it difficult to ascertain whether the differences were due to bias or simply that the participant knows the statistical likelihood of the outcomes presented.

However, if the respondent tended to answer based on the statistical likelihood, there would also be an expectation that gender and race differences would be present in the same way as ability main effects. In future studies, scholars may want to consider controlling for prior statistical knowledge of student outcomes to better disentangle biases from other potential confounding constructs (Auspurg & Hinz, 2015; Kline, 2016)

Furthermore, items in this study were commonly rated on a 7-point Likert-style scale due to previous studies recommending this over 5 response options. However, despite normality assumptions being met, most participants found the described behavior to be disruptive. Therefore, the sensitivity detection expected by using a 7-point scale was diminished. In the future, the scale options might start the assumption that the



behavior is disruptive and provide options for the level of disruption to provide a better detection of differences.

## **CHAPTER 5. Conclusion**

Although it is widely known that gaps in academic and educational outcomes differ by race, gender, and ability, the current study found that expectations of these outcomes differ consistently by ability. Specifically, students with a disability were expected to experience poorer outcomes than students without. Despite several limitations to this experimental study, it provides evidence that differs from the theory presented in which the expectation of interaction effects would be present with lower expectations reported when multiple marginalized identities were presented to the participants. However, in light of the results, the patterns of poorer outcomes for students with marginalized identities persist indicating a need to better understand how they are manifested at both the systemic and individual level through an understanding of whiteness within the educational system. One possible theory for this that emerged from the results is that examination of selection into special education may be one way in which to disentangle ways in which educational gaps persist given significant findings in this study by ability status. Further understanding the complexity of intersectionality within the school setting is useful in addressing ways to provide better opportunities and outcomes for students.

## APPENDIX: SURVEY ITEM DESCRIPTIONS

Variable	Item Wording	Answer Options						
<b>Dependent Variables</b>								
<b>Behavior Reoccurrence</b>	Regarding the behavior exhibited by the student in the scenario (i.e. 'make me'), rate the likelihood that the behavior will be repeated in the future.	1. Extremely unlikely	2. Moderately unlikely	3. Slightly unlikely	4. Neither likely nor unlikely	5. Slightly likely	6. Moderately likely	7. Extremely likely
<b>Behavioral Pattern</b>	To what extent do you agree that the behavior, specifically the student saying 'make me,' is part of a broader pattern of behavior?	1. Strongly disagree	2. Disagree	3. Somewhat disagree	4. Neither agree nor disagree	5. Somewhat agree	6. Agree	7. Strongly agree
<b>ODR</b>	Based on what you read, how likely is the student to experience the following during their schooling. One or more office discipline referral(s)	Extremely unlikely	Moderately unlikely	Slightly unlikely	4. Neither likely nor unlikely	5. Slightly likely	6. Moderately likely	7. Extremely likely
<b>One or more suspension(s)</b>	One or more suspension(s)	1	2	3	4	5	6	7
<b>Serious Exclusionary Punishment</b>		1	2	3	4	5	6	7
	An expulsion	1	2	3	4	5	6	7
	An arrest within school grounds	1	2	3	4	5	6	7
	An arrest outside of school grounds	1	2	3	4	5	6	7
	<b>Scale Reliability = .882</b>							
<b>Low Academic Ability</b>	Rate your perception of the student's academic and cognitive abilities. ...Academic	Far above average	Moderately above average	slightly above average	Average	Slightly below average	Moderately below average	Far Below average
<b>Low Cognitive Ability</b>	...cognitive/iq	1	2	3	4	5	6	7
<b>Drop-out</b>	Based on what you read, how likely is the student to experience the following during their schooling. Graduate from high school (Reverse Coded for analysis)	Extremely unlikely	Moderately unlikely	Slightly unlikely	Neither likely nor unlikely	Slightly likely	Moderately likely	Extremely likely
<b>Academic Help</b>		1	2	3	4	5	6	7
	Extra help with math	1	2	3	4	5	6	7
	Extra help with reading	1	2	3	4	5	6	7

Extra help with writing 1 2 3 4 5 6 7

**Scale Reliability = .969**

**Covariates**

		Non Extreme Response	Extreme Response						
<b>Social Desirability (SDRS)</b>	SDRS Total	0	1						
		Definitely true	Probably true	Neither true nor false	Probably false	Definitely false			
	I am always courteous, even to people who are disagreeable	5*	4	3	2	1			
	There have been occasions when I took advantage of someone.	5	4	3	2	1*			
	I sometimes try to get even rather than forgive and forget.	5	4	3	2	1*			
	I sometimes feel resentful when I don't get my way	5	4	3	2	1*			
	No matter who I'm talking to, I'm always a good listener	5*	4	3	2	1			
	<b>* = scored 1, other responses scored 0</b>								
<b>Tolerance</b>	Rate how inappropriate you would find the following student behaviors in the classroom.	Extremely appropriate	Moderately appropriate	Slightly appropriate	Neither appropriate nor inappropriate	Moderately inappropriate	Slightly inappropriate	Extremely inappropriate	
	...Doing things to annoy the teacher	1	2	3	4	5	6	7	
	...Arguing, fussing, or talking back to the teacher	1	2	3	4	5	6	7	
	<b>Scale Reliability = .813</b>								
<b>Severity</b>	To what extent would you rate the behavior as disruptive...	To an extremely small extent	To a very small extent	To a small extent	To a moderate extent	To a large extent	To a very large extent	To an extremely large extent	
	...to you as the teacher?	1	2	3	4	5	6	7	
	...to other students in the classroom?	1	2	3	4	5	6	7	
	<b>Scale Reliability = .609</b>								
<b>Inappropriateness</b>	How inappropriate would you rate the behavior (i.e. make me) described in the vignette?	1. Extremely appropriate	2. Moderately appropriate	3. Slightly appropriate	4. Neither appropriate nor inappropriate	5. Slightly inappropriate	6. Moderately inappropriate	7. Extremely inappropriate	
<b>Major</b>	Which of the following best describes your concentration or major?	Elementary/Early Childhood	Secondary Education	Other	Special Education				
			Mathematics	Physical Education					
			Science	Art/Music					
			Social Studies	Agriculture Education					

		English/Language Arts							
<b>Vignette Construct Evidence</b>	<b>Disability Course</b>	Have you taken a course regarding students with disabilities/exceptionalities?	No	Yes					
	<b>Hours in the classroom</b>	Estimating as close as you can, how many hours have you spent that will count towards your teaching certification in the classroom?	0-200 hours						
	Vignette Realism	How likely is it that you would encounter a similar student in your own classroom?	1. Extremely unlikely	2. Moderately unlikely	3. Slightly unlikely	4. Neither likely nor unlikely	5. Slightly likely	6. Moderately likely	7. Extremely likely
Vignette Realism	How similar is the behavior in the vignette to other students you might have in your classroom?	1. Extremely similar	2. Moderately similar	3. Slightly similar	4. Neither similar nor different	5. Slightly different	6. Moderately different	7. Extremely different	
<b>Demographic Variables</b>									
<b>Participant Gender</b>	What is your gender identity?	1. Male	2. Female						
<b>Race/Ethnicity</b>	How do you identify your race?	1. White	2. Black/African American	3. American Indian or Alaska Native	4. Asian	5. Native Hawaiian or Pacific Islander	6. Other ____		
<b>Enrollment Status</b>	Are you a full- or part-time student?	1. Full-time	2. Part-time						
<b>Grade</b>	What is your year in school?	1. First year	2. Second year	3. Third year	4. Fourth year	5. Fifth or above			
<b>Behavioral Management Course</b>	Have you taken a course in Behavioral Management?	No	Yes						
<b>White Racial Identity Scale</b>	For each of the subsequent items, indicate the extent to which the item is true to you.	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly	
<b>WRIAS Low</b>	There is no race problem in the United States.	1	2	3	4	5	6	7	
	Racism only exists in the minds of Black people.	1	2	3	4	5	6	7	
	I personally do not notice what race a person is.	1	2	3	4	5	6	7	
	I believe that White culture or Western civilization is the most highly developed, sophisticated culture ever to have existed on earth.	1	2	3	4	5	6	7	
	Africans and Blacks are more sexually promiscuous Europeans and Whites.	1	2	3	4	5	6	7	
	The White race will be polluted by intermarriage with Blacks.	1	2	3	4	5	6	7	
	American society is sick, evil, and racist.	1	2	3	4	5	6	7	
	There is nothing I can do to prevent racism.	1	2	3	4	5	6	7	

	I avoid thinking about racial issues.	1	2	3	4	5	6	7
<b>WRIAS High</b>								
	It is White people's responsibility to eliminate racism in the United States.	1	2	3	4	5	6	7
	Eliminating racism would help Whites feel better about themselves.	1	2	3	4	5	6	7
	White people should help Black people become equal to Whites.	1	2	3	4	5	6	7
	White culture and society must be restructured to eliminate racism and opposition.	1	2	3	4	5	6	7
	Whites and White culture are not superior to Blacks and Black culture.	1	2	3	4	5	6	7
	A multicultural society cannot exist unless Whites give up the racism.	1	2	3	4	5	6	7
	I accept that being White does not make me superior to any other racial group.	1	2	3	4	5	6	7
	Being a member of a multi-racial environment is a must for me.	1	2	3	4	5	6	7
	My Whiteness is an important part of who I am.	1	2	3	4	5	6	7

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## VITA

### EDUCATION

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<b>Millersville University</b> , Millersville, PA M.S. plus Certification in School Psychology	2012
<b>Messiah College</b> , Grantham, PA Major: B.A. Psychology Minor: Child and Youth Services	2009

### PROFESSIONAL EXPERIENCE

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Evaluation Center, University of Kentucky, Lexington, KY <b>Research Assistant</b>	2018-2019
Teaching Assistant, University of Kentucky, Lexington, KY <b>Instructor of Record</b>	2017-2018
Special Education, Dickson County Schools, Dickson, TN <b>School Psychologist</b>	2013-2016
Currey Ingram Academy, Brentwood, TN <b>School Psychologist</b>	2012-2013

### PUBLICATIONS

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*Revision submitted.* **Fisher, A. E.**, Fisher, S., Arsenault, C., Jacob, R. & Barnes-Najor, J. (under review). The protective role of ethnic identity on the relationship between school climate and self-esteem for African American adolescents. *School Psychology Review*.

**Fisher, A. E.**, Fisher, B. W., Railey, K. (under review). An integrated view of the manifestation determination review process and DisCrit theory: Review and implications for practice. *Race, Ethnicity, and Education*.

**Fisher, A. E.**, Allday, A, Jones, M. & Samudre, M. (under review) Effects of disability labels on preservice educator perceptions of behavioral recidivism. *Preventing School Failure*.

Samudre, M. D., Allday, A., Jones, M., & **Fisher, A. E.**, (under review). Multi-component training intervention to teach pre-service elementary general educators to conduct descriptive assessments. *Journal of Behavioral Education*.

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